

***Listing of Claims***

1-12. (canceled)

13. (previously presented) A method of transmission in a contention-based access channel by a wireless transceiver, comprising:

a) transmitting a burst in said channel;

b) detecting whether said burst has collided with another burst in said channel;

and, when a collision is detected at said detecting step, waiting for a period determined according to a repeat parameter before repeating steps a) and b), wherein said repeat parameter is received by said transceiver and wherein said repeat parameter indicates a waiting period and includes an increment by which said waiting period is increased after each subsequent collision is detected, whereby said transmission in step a) is increasingly delayed as additional collisions are detected.

14. (original) A method as claimed in claim 13, wherein said period is randomly or pseudo-randomly selected from a range indicated by said repeat parameter.

15-17. (canceled)

18. (previously presented) A method as claimed in claim 26, including detecting the content of said monitored data, wherein the demand for capacity is predicted according to said content.

19. (previously presented) A method of allocating frequency channels to a plurality of wireless transceivers, comprising:

transmitting to each of said plurality of transceivers a forward frequency channel allocation signal indicating an allocation of a forward frequency channel which that transceiver is to receive, wherein each transceiver in said plurality of transceivers is allocated a different forward frequency channel; and

transmitting to each of said plurality of transceivers, in said forward frequency channel assigned to that transceiver, a respective return channel allocation signal indicating an allocation of one or more return frequency channels in which that transceiver may transmit;

wherein, for each forward frequency channel, a set of preferred return frequency channels is stored, such that for said transceiver to which a specified one of said forward frequency channel is allocated, the allocated one or more return frequency channels is preferentially selected from said corresponding set of preferred return frequency channels.

20. (withdrawn) A method of allocating contention-based capacity to a plurality of wireless transceivers, comprising:

transmitting to said transceivers a first contention-based capacity allocation signal indicating a first channel capacity assigned for contention-based access to said transceivers;

receiving in said first channel capacity, transmissions from said transceivers;

detecting a level of usage by said transmissions of said first channel capacity;

determining, according to said level and said first channel capacity, a second channel capacity assigned for contention-based access to said transceivers; and

transmitting a second contention-based capacity allocation signal, indicating said second channel capacity, to said transceivers.

21-25. (canceled)

26. (previously presented) A method of controlling transmission by a wireless first transceiver in a channel shared with transmission by other transceivers, comprising:

monitoring data packets transmitted to said first transceiver;

analyzing the content of the payload of said monitored data packets;

predicting, on the basis of said analyzing, a future demand for capacity in said channel by said first transceiver; and

transmitting to said first transceiver an allocation signal indicating an allocation in said channel determined according to said predicted demand, wherein said allocation is made independently from a request for allocation by said first transceiver.

27. (original) A method as claimed in claim 26, including generating a statistical model based on previous traffic flow to and from wireless transceivers, wherein the demand for capacity is predicted according to said statistical model.